

FIG. 1A

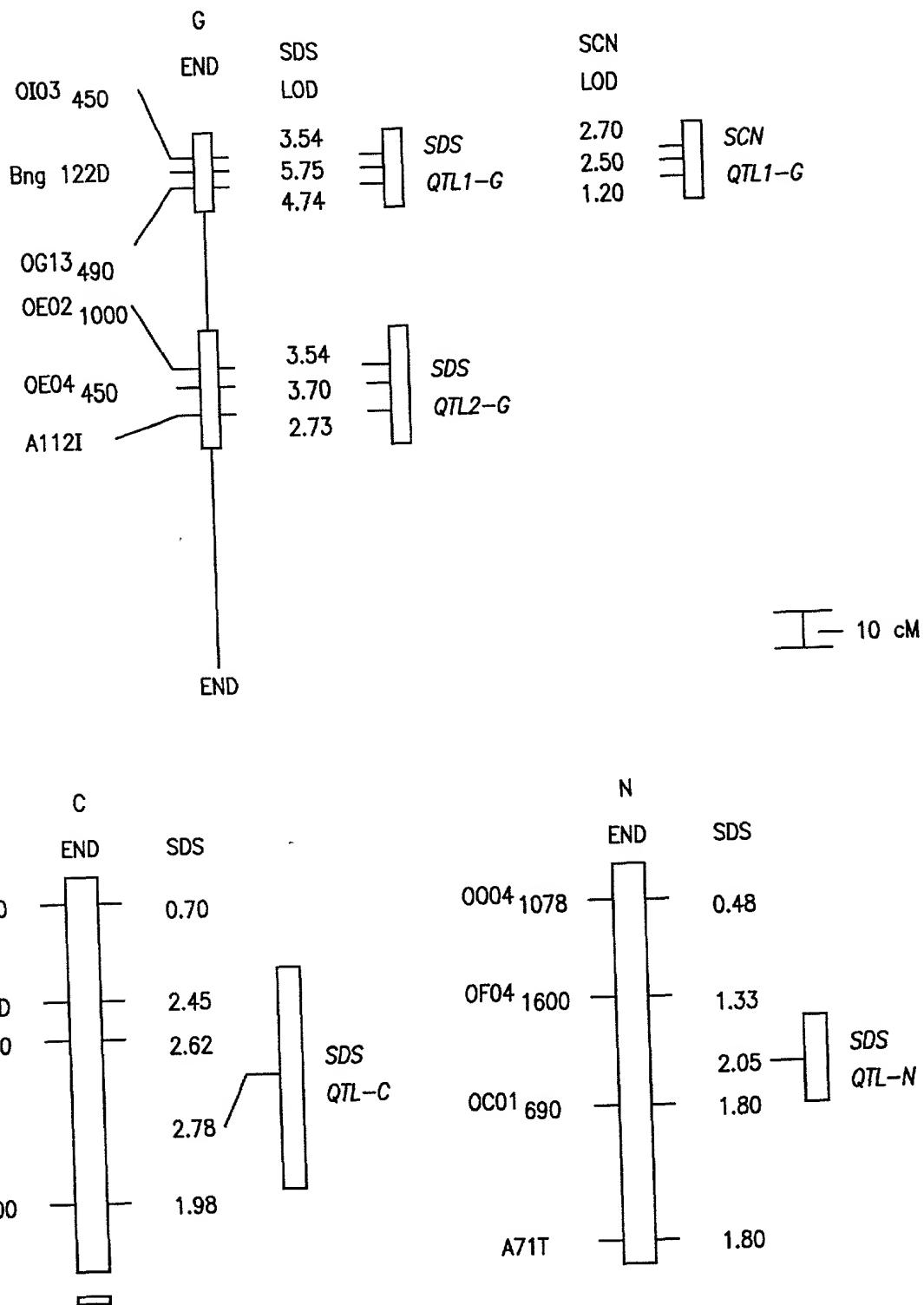
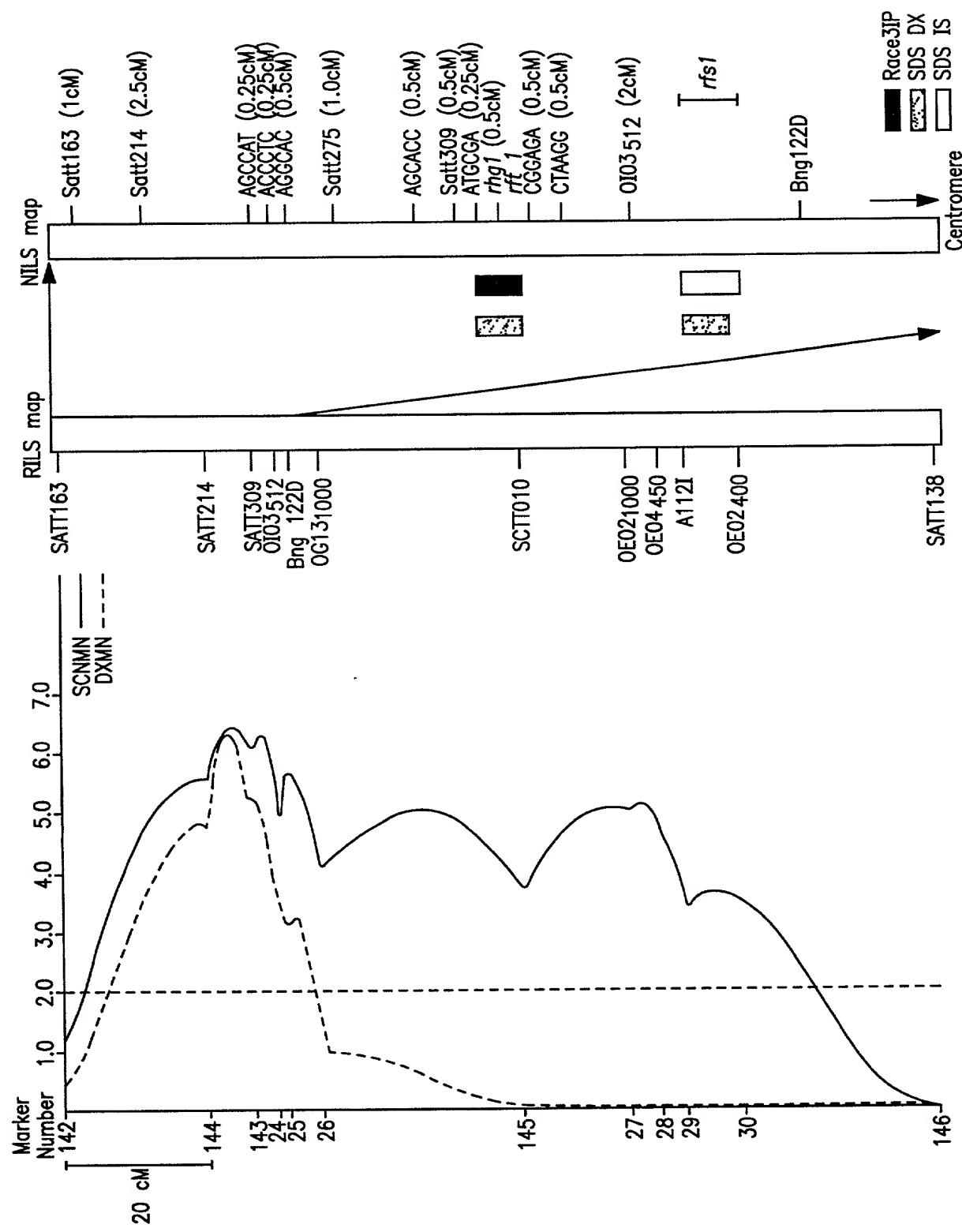


FIG. 1B

FIG. 1C



Title: Soybean Sudden Death Syndrome Resistant Soybeans,
Soybean Cyst Nematode Resistant Soybeans and Methods
of Breeding and Identifying Resistant Plants
Applicant(s): Lightfoot et al.
Attorney Docket No.: 1268/2/2

List Map of linkage group A:

	A117H	-	5 cM
	rfs2	-	38 cM
	OH03 ₇₀₀	-	11.2 cM
5	OW15 ₅₀₀	-	14 cM
	Blt65	-	1 cM
	CCAAGC309	-	0.5 cM
	CCC/ATG349	-	0.1 cM
	CCG/AAC400	-	0.4 cM
10	Rhg4	-	0.4 cM
	CCG/AAC401	-	0.1 cM
	CAT/ATT250	-	0.5 cM
	CCC/ATG350	-	0.5 cM
	CCA/AGC310	-	2.8 cM
15	OX04800	-	50 cM

K636

FIG. 1D

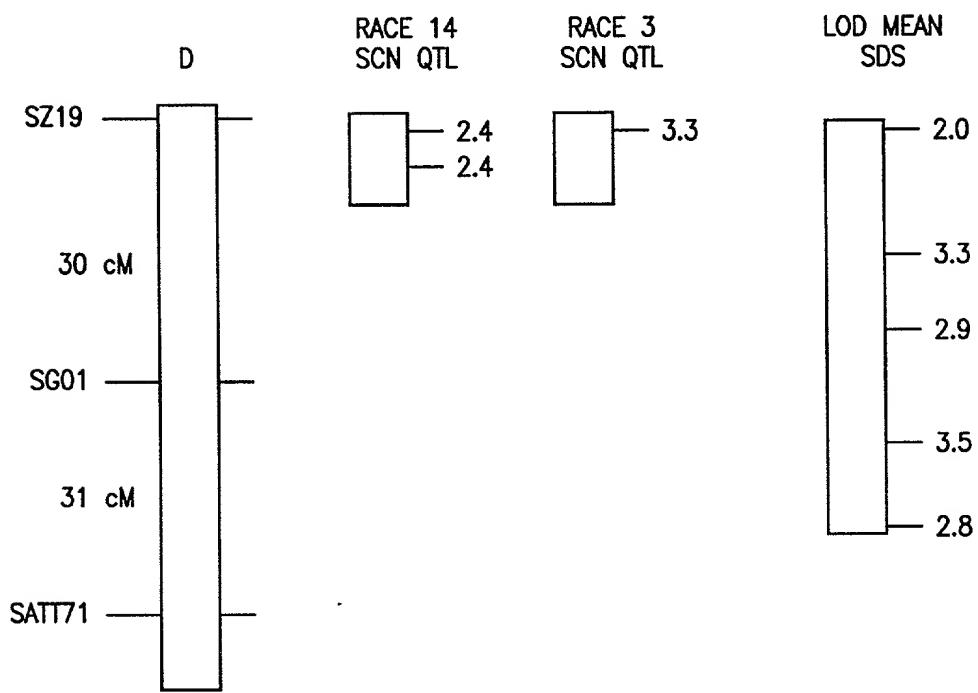


FIG. 2

Title: Soybean Sudden Death Syndrome Resistant Soybeans,
Soybean Cyst Nematode Resistant Soybeans and Methods
of Breeding and Identifying Resistant Plants
Applicant(s): Lightfoot et al.
Attorney Docket No.: 1268/2/2

Sequence of OI03₄₅₀ Essex DNA, 527 bp

(SEQ ID NO:1)

TGTTCTAGATAGTCGCAATTCAATCAAATTCCCAATTATAATTG
AATAAAAAGATTCATGAAATCAGGTGATCAAGCGAAAAATAAGCAT
5 TAAGCGTAGAAGAGAAGCAATAAACATTTTTATTAAATAATAAAA
GAGTAATTACATAAAAATATGTTGATTACATTAAACCCCAACAAA
GGATGAATTAGCTTCTCATGACCATGGGAAAATCAAACTTGATG
AACAAAGAAGATGAAGAAGAACCTTAAGGATAAACACTGCCTAGCT
CCAATGTGCTCTCTAGTATTTATCTTCAAAAATCCCAAGAACCC
10 CCTAATTTCAAGAAGCCCATTTCATCAGAAGCCCATTTC
AATCAAGAAGCCCATTTCATCAGAAGCCCATTTCATCAGAAG
CCCATTTCATCAGAAGCCCATTTCATCAGAAGCCCATTTCAT
AATTGTATTCCAAAACCTTGAGATTCTGAACGTAAATTATTAGTA
AATTGTAATCACCTCTGTAAA

FIG. 3A

Title: Soybean Sudden Death Syndrome Resistant Soybeans,
Soybean Cyst Nematode Resistant Soybeans and Methods
of Breeding and Identifying Resistant Plants
Applicant(s): Lightfoot et al.
Attorney Docket No.: 1268/2/2

Sequence of OI03₄₅₀ Forrest DNA, 814 bp

(SEQ ID NO:2)

ATGATTACGCCAAGCTATTTAGGTGACACTACTAGAATACTCAAGCTATGCATCCAACG
CGTTGGGAGCTCTCCCATATGGTCGACCTGCAGGCGGCCGCACTAGTGATTCAAAGCC
5 CAAAGGTAACAGCAATAAGTAATCCCTGTTATAAGATCCCAGAACTTCCAGTTATT
TAATGAAAATGCAATAAACATCGGCTAGTTCACAGTAATATACAAATCGGAACATCAC
ATTGACTACAATATAGTACATAAAATTAAACACTAAGAAACCTCCTGATTGATTTATT
TGCATTACCTATGTTGTCACAAGAATATACTCAAATGACTTGCCTGATTAAAT
10 TATCACGATGTAACACAAACAAAGATGATANTTGTGATCAACTGTTCAGCACCAAGA
GAGCCCTCCCCACAATCAACTCAGGTTTCACTTTGGTGCTGAAAATGAGTGGCACA
TGNAAAAGCAAGAGTCNTCTTGACAAATGTGCCTGCCGANAGTTATCANTACTTACTA
ACAAGATAATGAGCCAAACATCATCTGGNCATCAACCTTCATGNCTTNTCAAGTT
15 ATACCTATNANTNACTANGTCTTATATTNCANNTGGTGATTACANTTACNANTAAAGTT
TAGCTTNAAGAAATNCAAGTTTNGGACTCCATGCCTNGNCNGGNTTCNNATCCGTC
GGCCAGGGCGGNCGNNCACTGNTNGGNAGNCCANTNCNCAGANCACNGNCCNTT
TCCATTCCNGGNCCNTCNNCTCAANGACNGCCGGNGAAANCNNGGGT

FIG. 3B

Title: Soybean Sudden Death Syndrome Resistant Soybeans,
Soybean Cyst Nematode Resistant Soybeans and Methods
of Breeding and Identifying Resistant Plants
Applicant(s): Lightfoot et al.
Attorney Docket No.: 1268/2/2

K455-T3

(SEQ. ID NO: 3)

GCAGATGTAACTGTCACAAATCTAATATTCTAGTTCTAGATGAAAATATTTTT
TCCCATAGCAAGCAAAGTATGGATTTGTCATTTTCAAGAGACGAAGAACTCTCAACA
AACATGTTATAGTAACCTCATTGCAAAACTCAACAAATAGATTTGGAACCTTAAT
ATAATAAAATTCAACAGTCTTCAATTCTGCTTACCTCTCATAGGATCA
TATAGAATTTAACCCCTACAAGCTCTAAAAACAATCCATTATTATGCTCCTTATCCA
ATAAAACAAAACCATAAGTGATTCTCAAAATGAAGATTGACAAAGGCAAAAAGTTA
CAATCAATAATCTAAATTGTGTACTTACTTATTCTCGGGNGCANATNCTTGAA
TGCTGGNTCAATAGCTTCTTATAATTNTCTCATCTGCAACNTCCNGCCTAGGN
GGTCTCCATTGTCAATCCAAGGTNNTCGN

FIG. 4

K4SS-T7

(SEQ. ID NO: 4)

GGTACCCGGGGATCCTCTAGAGTCGACCTGCAGGGAGGCCAATGTNATGTTGANCTT
TGCTCGCTCATATGGCCTACAGGGTTGCCAATTAGTGTGAAGGTAAATTGGTAA
ATGGATAATATTGTATTCTTATTTATGATGTTACAAGTNCAAGGNATAANCT
GATGCCGTGAGT

FIG. 5

A117-T3

(SEQ. ID NO: 5)

CAGGTAGACAAATCTGATGGTACTGAAGTGGTCATACAATTAAAAAGTTCCCTCTT
TAAAGCCCAGAGAATATGTCTAGCTTGAAGTNGTGGGAGGGAGTGATGAAACA
TTTACTGTTTATGAAGGTAAATACACCAATTATTGTTTGTAAATAAAATGT
GAATAATTGTCAATCGTGAATTGCATTATCTCTCCTTACTCTGTCTTCACCTTTT
ACCCCTTATTGAGAGGAAGAACATGTAGTAAAAATGATGATAAAATTGTTAG
AAAATATAGTGTCAATTAGAGATTCAGATTATAACTAGAACACTATTATT
TCATGTAAACTATCCACGGTAATTAACTCAACTGACATATTTCACTCAAAATATT
CTGGTTTCTCATTATACATTAAATAGGAGCTTANCCATTGCAAGCTGGT
TGGAGGCCCTCCGATGCCTTGTGGATTGNGACCA

FIG. 6

A847-T3

(SEQ. ID NO: 6)

NAGNCAGGGAACCCACACATACAGACAATTAAAACCGTTGGATGAAAATCATACTAC
TCATAAAATTGAAAATATACGTAAGANCTCATCTAACACTGCTAGTCGAAGAATG
CGTAAATGCAGGNNAATCCATTCCATACTAAATGGACAAACCTTATTTTTTT
AGCGGAAACGTTAATTATTAAATTCTTGTAGACAAGGGATCAAACCGACCTTC
CCTTCTTCCATCTTCTTGACCACCAACCTTATCTCCACAAACCTTATTAT
ATGTTGTTCTCGGGGACTATCAGAATTGGAGTTAACCTCGGGCANTCAACTACAT
AATCCTTGATTNATTNGTGAAGTCTAAAGCCACAGGCATTATTATNTTATTNTT
TCTGNAGTAACCNCCATATGTTGGNNATAAGGGTANGNATNAAAATNCNTGGNT
GGTNNCNATTGCNCTTNCNAGGCCGGGATGGNTTT

FIG. 7

A847-T7

(SEQ. ID NO: 7)

NNACAAANANCAGGGGATCCTCTAGAGTCGACCTGCAGTGATACTAGAACTNAAT
GAACAGGGAGAGAGAGAGAGAGAGAGANANTNAANATAACGATGAAGCTCTCCCTATT
GACGGTGTTCATTGTAGCAATAGCATCGTTATCTCTTATTATTGCTGGTCATCATNA
TCTCAATTCCAGTGGCA

FIG. 8

Title: Soybean Sudden Death Syndrome Resistant Soybeans,
Soybean Cyst Nematode Resistant Soybeans and Methods
of Breeding and Identifying Resistant Plants
Applicant(s): Lightfoot et al.
Attorney Docket No.: 1268/2/2

(SEQ ID NO:8)

AATTTTTATATAAGTTGCAAAATTAGGGACTTATTATTAAATTATTGTAGGG
ACTAATTTATCATATTTTGATATTCAAGGAATTAAATTAAATTCATCCTTCAT
ACTAACTTATTAACGTTCACATTCAAAGACGAGTCTAGCTATTATAATT
5 CCTAAAATATATTTTCCTCATAAAATATGAAAATATTAAAATTGTTCTAAATT
TTTTTCAAAGCATCTTCCTTCCACAAAATTGAAATGTATCATTTTTTGTCAA
AAGTTAAATAAATTGAACCTAATATGACATTATCGGTTACATATAACTGAT
ATAAACATCAAGTTTATATCAATGATAACCTATAACTGATATCAAATGTGACAATT
TATATATAATTAAATGAAAAAGTCATAAAATATAATTATTGAGTCAAAAATAATA
10 TATTTAATTATTTGAAGATGAAAAGGATAAATTAAAACATTGTGTGANGATGAA
AAACTAGATTTCTGGTTAAATGCAAAACCAATGCTATTATTAAATT
TACCTTTTATAATTACNCCACCAAAAAACC GTTGGTACAAATTGANTTAA
ATTCTNTTGTATTAAAAGANANATTAATTNGGAANGGTCTTTNAAAACNCTNCN
GTCNANTAACNAATCT

FIG. 9

(SEQ ID NO:9)

ACGCCAGTGANTGTAATACGACTCCTATAGGGCGAATTGCCAAGTCGGCGAGCTCGA
ATTCGTCGACCTCGAGGGATCACGCTAACGATATATTATTAATCAACTGCTTCAATAGA
GTGCACACACCCATCTTCATAAAATTACTACACTTTAATTTGTAAATAAAAAAC
5 CTAGAAAAACTCATTATGAAACAGATGATGTACTTTAACACTCTGTCGGCCTCTCT
CTCTATTATATATTGATTAAATTATTGAGAATTATATTGTGGGTCTCATTTAT
TATATTATTATAATTGGATCCGGCCCTCTAGATGCGGCCGATGCATAAGCTTGAGTA
TTCTATAGTGTACCTAAATAGCTGGCGTAATCATGGTCATAGCTGTTCTGTGA
AATTGTTATCCGCTACAATTCCACACACATAGAGCCGAAGCATAAGTGTNAAGC
10 CTGGGGTNCTAATGAGTGAGCTAACTCACATTAATTGCCTGCGCTCACTGCCGCTT
TCCAGTCNGGAAACCTGTCCTGCCAGCTGCATTAATGAATCNGCCAACCCNCGGGANA
AGCNGTTGCNTATGGCGCTTNCCTCGCTCANTGACTCGCTGCGCTCNGT
CNTTCNGNTGCCGGAACGGTATCANCNCACTCNAANGNNGTAAATACGGTTATCCACC
NAACCNNNGGGANAACCCNGGAAAAAACATGTNANCAAAGGCCNCCAAAAGGCCANG
15 AACNTTNAAAAGGCCNNTGCTGNCTTNTN

FIG. 10

(SEQ ID NO:10)

NNNNNNNTGAAACGACGCAGTGAATGTATA CGACC ATAGGGCAATGCCAAGTCG
GCCGAGCTCGAATT CGTCGACCTCGAGGGATCTTTTATGTTGGTAGCTACTGTAATAT
CATCTTGTACTTTAAC TTTAAC GTCA ACTCCCTTGGA CTATATAAGCAAAAGA
5 GTGGTCTTGTATGTCGGACTAAATATAAGCAAATCTAACTAATTTGTCCTATTTAAT
ACTTTCA TTCCCTAAAACACCCCTCATTAAATTCTAATTCTATTCCAATAACTCTTTT
TATT CATGATAACAAGTCCAATGAAGGACATTTAGAAATAACCTTATTTTATTTG
AGATTAGTAAATTAAATGATGTGA ACTAACTTCTTAATTAAATGTGAAATTAGTTATT
TTTCTTATATACGAGTCAAAGGGAGTACCAATTCAAAATGTACTAAATGTATT
10 ATATGCTTCTTTAATTCA TCTTGCTGCATANCTACTTAGCTACTGTGCTCTGATCC
GGGCCCTCTAGATGCGGCCGCATGCATAAGCTTGAGTATCTATAGTGTCCCTAAATAGC
TTGGCGTATCATGGTCATAGCTGTTCCNGTGTGAAATTGTTATCCGCTCACATTCCA
CACAAACATACGANCCGGAAGCATAAAAGTGTAAAGCCNGGGTGCCTAATGAGTGAGCT
AACTCACATTAATTGCGTTGCGCTCACTGCCGCTCCNATTGGAAACTGTCCGTGNC
15 ANCTGCATTAATGAATCNGGCAACCCNCNGGAAAGGC GG

FIG. 11

Title: Soybean Sudden Death Syndrome Resistant Soybeans,
Soybean Cyst Nematode Resistant Soybeans and Methods
of Breeding and Identifying Resistant Plants
Applicant(s): Lightfoot et al.
Attorney Docket No.: 1268/2/2

(SEQ ID NO:11)

ACNGCCAGTGAATTGTAATACGACTCCTATAGGGCGAATTGCCAAGTCGGCCAGCTC
GAATTCGTCGACCTCGAGGGATCTATAATATTCTGACAGCTACCTTTTATTTAGCTT
GCAGAGGGCTGATTTGGAGAAAACATCATCCATGGTATAAAAGTCCGTTAGATTCCA
5 GCTATTGTTCACATTACATCCCTAACATATGAGAATATCCCTATAAGCTGAAACTAACCT
TTACAAACAAACATGCACCGAACCATAAAGTTGACTTAATATCCGGGTATAATGAC
CTTAATTCAAGAAATTACATAAAACTAAAAGTAAGTTGTATTTATTTATGTCTGGA
TTTACTGCACAAACTAAACAAAAGTTGGATTAGACATAAAAAACCAATGCTGT
GTGAAAATAAGAAATGGTGGTCATAGACAAGTTCTTCTGTTCTTAAATTGC
10 AGTCNAAGCCATCANGAGGTTCATGTAATTACCAAACTAGACGTTGACTTTGGTTT
ATCCTTTGTAGAATAGCAAGCAAGTCATTATAAATCTGCCATTGGACAGCTTAGTT
TAACTCCCGCCGCAAATTGTTAAATATTNAATAATAATCACCTAAAATCATATT
GTCANTTCATTGTTANGTTATCAATTATTATTACCTTACNTCCTTATA
15 ATNTCAATGATGGGACCCAAAAATTATCAAATACNTTNAAGCNTTATTATTATAAT
TAANCCTTAATTATAATTAAAAATTCAATTAAATTTCNATTAAATTNTTAAN

FIG. 12

Title: Soybean Sudden Death Syndrome Resistant Soybeans,
Soybean Cyst Nematode Resistant Soybeans and Methods
of Breeding and Identifying Resistant Plants
Applicant(s): Lightfoot et al.
Attorney Docket No.: 1268/2/2

(SEQ ID NO:12)

ANANGATTCGNCAGCTATTTAGGTGACATATAGAAACTCAAGCTTATGCATGCGGCC
GCATCTAGAGGGCCCGGATCTTCGGTGAAAGCAAAATTGAAGTCTTGCTCATTTT
ATCAAATTCTTAATGAAAAGTTAATTACATAAAATATTTAGTAGAAGCAATTTACA
5 CAGTTATTATTTAAAAAAATTACACAGTTATTCAATAACAAATTACAATATATTATAAG
GTTATAATAAAATATTTAAAATTCAATATAAAAGATGACTTATTAATAAGTTGATAATGT
AAATTTTTACACTATTAACTCATTACGTAATCTTAGCGACAACATACTATTTTT
TCATGAAATTACAAAAAGCTTCAAAAATAAAATTATTAGTTGTACCCCCAAATATA
AAATTATTAGCTATGTTAAAATTGTGAATTCAAAAAGAAAAAAATATTACAGTAT
10 TATATATTAAAATTAAATCTCACAAATAAAACACGTAAAGTTATCGTTTGAAATTATTA
GTTAAAGTCCTCGTCTCGTATTTCTCAACTCTACCGACAGCATAAACAGGTTGTCT
CCTTCNTAATAACAATCGTGGCTGGAACAAAAATGTTTTAGAAGAATCNGAAAT
CGTATTGACGGTGCCTTAAAAAGACTATCCAATAATCTCTTTAATAACNCTGAAT
15 TTCNCCAATTCTNCNAACGGTTTTGGTGCCTNTTTAAAAAAAGTTNAATTAA
TTAAAATNCN

FIG. 13

Title: Soybean Sudden Death Syndrome Resistant Soybeans,
Soybean Cyst Nematode Resistant Soybeans and Methods
of Breeding and Identifying Resistant Plants
Applicant(s): Lightfoot et al.
Attorney Docket No.: 1268/2/2

(SEQ ID NO:13)

ATNCCCNAGCTATTAGGTGACACTATAGAATACTCAAGCTTATGCATGCCGCCCATCT
AGAGGGCCGGATCCAATTAATAAAAATATAATAATGAGACCAACNAAAATATATTCTC
NATAAATTNAATCCATATTTANTAAAAAAAGGCCNACAAATTNTTAAAATTCC
5 TNCNNCNNTTCATANTNATTTCTAGGTTTTTATTNCAAAANTAAAAATTNTAT
TANTTTATNAAAATAGGGTNTNTGCACNCTATTGAACCANTNNATTAATAATATATC
TTTANCNTNATCCCTCAAGGTCAACAAANTTCANANCNCGCCNACTTGGCCAATTNC
CCTATAGTGANTCNTNTACAACACTCACTGGCGTCGTTACAACCTCGTGACTGGAA
ANCCCTGGCGTTCCCCAANTTAATCNCCTTGCAACATNTCCCTTCGCCNGCTGGTGT
10 TNATACCNAAAAGGCCGCNCGATGCCCTCCNACTTTGCGCCCCCTNAATGGCN
AATGGACGCCCTGTTNCNGNCATTANNCGGGGGTGTGGTGGTACCCCCACNT
GACCCCTACACTGCCAGCCCCCTAACCCCNCCCCTTCGCTTCTCCCTCCTTCTC
GCCNCTTCGCCGGNTCCNTCAAGCNCTAAATGGGGCTCCCTTAGGGTCCNAATT
AATTGCTTACGCCCTCCACCCAAAAACTTGATAAGGGTGTGGTCNCNTCTGGGG
15 CNNCCCCN

FIG. 14

Title: Soybean Sudden Death Syndrome Resistant Soybeans,
Soybean Cyst Nematode Resistant Soybeans and Methods
of Breeding and Identifying Resistant Plants
Applicant(s): Lightfoot et al.
Attorney Docket No.: 1268/2/2

(SEQ ID NO:14)

ACNTGATTCACCAAGCTATNTAGGTGACTATAGAATACTCAAGCTTATGCATGCGGCG
CATCTAGAGGGCCCGGATCAGAGCACAGTAGCTAAGTAGCTATGCAGCAAAGATGAATT
AAAAAGAACATATAATACATTTAGTACATTGTGAAATTGGTACTCCCTTGGACT
5 CGTATATAAGAAAAATAACTAATTCACATTAATTAAGAAAGTTAGTCACATCATT
AATTTACTAATCTCAAATAAAAATAAGGTTATTCTAAAATGTCCTTCATTGGAAC
TGTTATCATGAATAAAAAGAGTTATTGAAATAGAATTAGAATTAAATGAAGGGTGT
TTAGGAATGAAAGTATTAAATAGGACAAATTAGTTAGATTGCTTATATTAAGTCCG
ACATACAAGACCACTTTGCTTATATGAGTCCAAAGGGAGTATGACTAAAAGTT
10 NAAAGTNCAAGATGATATTACAGTAGCTACCAACATAAAAGATCCCTCGAGGTCGACG
AATTGAGCTCGGCCACTTGGCCAATTCCCCTATAGTGAGTCGTATTACAATTCACTG
GCCGTCGTTTACAACGTCNTGACTGGAAAACCTGGCGTCCCCACTTATGCCCTGC
AGCACATCCCCTTCGCCNGCTGGCGTNNTACCAAAAAGGCCGCACCGATGCCCTCC
CNACAGTTGCCCANCTGAATGGCGAAATGGACCCCCCTGTTACCGGCCATTAAAC
15 CCCGNNGGTGTTGGTTNCCCCNCCCN

FIG. 15

Title: Soybean Sudden Death Syndrome Resistant Soybeans,
Soybean Cyst Nematode Resistant Soybeans and Methods
of Breeding and Identifying Resistant Plants
Applicant(s): Lightfoot et al.
Attorney Docket No.: 1268/2/2

(SEQ ID NO:15)

ATTACGCCAAGCTATTAGGTGACACTATAGAAACTCAAGCTTATGCATGCGGCCGCA
TCTAGAGGGCCGGATCTTTATTAAAAATTAAATTGAGTCTCTTAATTATTGAAAAGT
TTAATTAAATCATCAATTATTAAAAAAATCAACCATACTCCTTATTGTTAAAACATT
5 ATAATTATGCTCTTCAACCAACTCTGTTAGTTAATTGATAGAAGTTTGAAATAGA
TATTTTACATAATATAATAATCTTTACATATAATTGCAGCCAATGTAATATTAT
CTTTTACATTCAATTGCTTTGATGTAAGAAATTATTGTTTACATATGTTGTATTGAC
AATAAAATATAAAATATTATTTGTCAATTAGATTATGAACGTGATGAAAGA
TATAATTATAATATTTAATAATTAGAGAATTGATTGAACTTTAATAATTAAAAA
10 ATTAAATGAATTTTAATTATAATTAAAGGGATTAATTATATAAGCTTAATGTA
TTTATAATTGGTGTCCNCATTAATATTATAAAAGGATGTAAGTAAAAATAATAAT
TAATATTACATAACAAAATAAGACAATTATTAGGTGATATTATTATAATT
TTAAACAAATTNCNGCGGAGTTAACTAAAGCTGTCCAATGGNCAGATTATAATGACTGC
CTGCNATTCTNAAAAGGATAAAACAAAAGTCCACGTCTAGTTGGTAAATACATGAA
15 CCTCCNGAATGGCTT

FIG. 16

Title: Soybean Sudden Death Syndrome Resistant Soybeans,
Soybean Cyst Nematode Resistant Soybeans and Methods
of Breeding and Identifying Resistant Plants
Applicant(s): Lightfoot et al.
Attorney Docket No.: 1268/2/2

(SEQ ID NO:16)

ACATGATTACACAAGCTATTTAGGTGACATATAGAATACTCAAGCTTATGCATGCGGCC
GCATCTAGAGGGCCCGGATGCCCTTCCCACAGTTGCGCAGCCTGAATGGCGAATGGA
CGCGCCCTGTAGCGCGCATTAAGCGCGGGTGTGGTGGTACGCGCAGCGTGACCG
5 CTACACTTGCCAGGCCCTAGGCCCGCTCTTCGCTTCTCCCTTCTCGCC
ACGTTGCCGGCTTCCCCGTCAAGCTCAAATCGGGGCTCCCTTAGGGTCCGATT
TAGTGCTTACGGCACCTCGACCCAAAAAACTGATTAGGGTATGGTCACGTANTG
GGCCATGCCCTGATAGACNGTTTCGCCCTTGACNTGGAGTCCACGTTCTTAAT
AGTGGACTCTTGTCCAAACTGGAACAAACACTCAACCCTATCTGGTCTATTCTTTGA
10 TTTATAAGGGATTTGCCGATTCGGCCTATTGGTAAAAATGAGCTGATTTAACAAA
AATTTNACGCGAATTTAACAAAATTTAACGCTTACNATTCCGTATNCGGTATT
CTCCTTACNCATCTGTNCCGTATTCCACCGCATATGGTGCACCTCAATACAATCTGC
TCTGATCCNCATAATTAAANCCANCCCCGAAACCCGCCAACACCCCTAAACNCCT
15 TAACGGGCTTGTNTGCTCCGGCATCCGCTTAACAAANAAACTTTAACGTNTCCGG
AACNGCATNTTTNAAGTTTACCCNCCTCCC

FIG. 17

Title: Soybean Sudden Death Syndrome Resistant Soybeans,
Soybean Cyst Nematode Resistant Soybeans and Methods
of Breeding and Identifying Resistant Plants
Applicant(s): Lightfoot et al.
Attorney Docket No.: 1268/2/2

(SEQ ID NO:17)

ACATGATTACGCCAAGCTATTAGGTGACACTATANAATACTCAAGCTTATGCATGCGC
CGCATCTAGAGGGCCGGATGCCCTCCAACAGTTGCGCAGCCTGAATGGCGAATGG
ACGCGCCCTGTAGCGGCCATTAGCGCGGGTGTGGTGGTTACGCNCANCCTGACC
5 GCTACACTTGCCAGCGCCCTAGCGCCCGCTCCTTCGCTTCTCCCTTCCTCGC
CACGTTGCCGGCTTCCCCGTCAAGCTCTAAATGGGGCTCCCTTAGGTTCCGAT
TTAGTGCTTACGGCACCTNACCCNAAAAATTGATTAGGGTGATGGTTACGTATT
GGGCCATCNCCCTGATAGACAGTTTCGCCCNTGACGTTGGAGTCCACGTTCTTAA
TATTGGACCTTGTCCAAACTGGAACAAACACTCAACCTATCTGGTCTATTCTTTGA
10 TTTATAAGGGATTTGCCNATTCGGCCNATNGTTAAAAATGAGCTNATTAAACNAA
AATTAAACGCGAATTTAACAAATATTNAANCTACAATTCTCTNATGGGTATT
CTCCTTACNCATCTGTGCGGTATTTACAACCGCATATGGTGCCTCTCAATTACNANNT
GCTCTGAATGCCGCATATTTAACCAACNCNGAAANCCNTCCAANNACCCNCTTAAN
CGCCCCGAACGGGTTGNTCTGCCCNNGCATCCCTANNAAACAACCTTTAACCTCTCC
15 TGGAACTTCNNNTTNAAGGTTCCNCCN

FIG. 18

Title: Soybean Sudden Death Syndrome Resistant Soybeans,
Soybean Cyst Nematode Resistant Soybeans and Methods
of Breeding and Identifying Resistant Plants
Applicant(s): Lightfoot et al.
Attorney Docket No.: 1268/2/2

(SEQ ID NO:18)

ACGGNTTNTGAATNGTTATTTAGGTGACACTATAGAAATACTCAAGCTTATGCATGCGG

CCGCATCTAGAGGGCCCCGATCCACCCGTCTCCACTGTTGTTACTACGCGAGCATIC

NCGGCCCTCCACCACCCGACAAGATACTTGGCCATTGGAATTCATAACCCATCAGCCT

5 GTCCCACGTCCCTTGTGTATTCTGGACTCTAAACTCGACCTCTCATCTCCGCCAAA

CAAACTCGTCCCTCGTACAGTGGACGGCCAACCCCTGAGGATACTACCTGGGAGCCNT

GGTCAGAAATNCCTNACCTTACCAACCTCNAGGACAAGTGGTCCTNCGGGCGACNGTA

TTGATNACNGTTACCCGGAAGATAACCCAGATTGAGCCCCACTTACTAAGACNAAGCCC

AACGTTNCCCCCNAGACCTGCTCTTGAATGACTACNANACTGACTCNANGAAGAAGC

10 TCCAACCATTNGTTNCCNAAGTTATTAGGGTNGTTACCCAATTAGTTAGAACGTTNTT

CCGTTGAAAAGGCTCATGTTACCCCCCTNCNNNTTTAATNCTGAATANATNATTA

AGAAGGCCTGCCNNAGGTTACNTTACTCCCTCCCCNCTCTANATTCTNTANGAAG

CTGCCTTCCCCNAAATTAGGGGCCATTCTCTTCCCTTCCGTCTTCACTCCCTCT

GCTCTTATCNNGAATTNCCTTGATNAACCCCCCGGTTTNGGATANAATTGAATTNAC

15 CCCCTCTTGAAAANAGAAGTTTTCN

FIG. 19

Title: Soybean Sudden Death Syndrome Resistant Soybeans,
Soybean Cyst Nematode Resistant Soybeans and Methods
of Breeding and Identifying Resistant Plants
Applicant(s): Lightfoot et al.
Attorney Docket No.: 1268/2/2

(SEQ ID NO:19)

ACGGCAGTGANTGTAATNCGACTCACTATAAGGGCGAATTGGCCAAGTCGGCCGAGCTCG
AATT CGTCGACCTCGAGGGATGCCGAAGTATCGACTCAACTATCAGAGGTAGTTGGCG
TCATCGAGCGCCATCTGAACCGACGTTGCTGCCGTACATTGTACNGCTCCGCNGTG
5 GATGGCGGCCTGAAGCCACACNGTGAATTGATTTGCTGGTTACNGTGACCGTAAGGCT
TGATGAAACNACCGGGAGCTTGATCCACNATGCCCATNACCNAAGTAGACCAAGAA
TCTAACACNAATNCATTGTCNGATATAACNAATGCTTTAACACGAGTGCTTCCCC
TNACANTGTTAGATTTGAGCCCANTCCCTCTCAATGATAACATNCAGGATGAAACNNTT
TGACATNNCTCCACCNATTGGNAGTCTCATGCACCACATTCCNCAGTATGTTG
10 AAGGTCNTTGGCCNGTCCCTTANANAAATATTCCCTGCCNNTTCAGGTTGANTCTCA
TTCCNNAAAATATATCCCCTGTCCATTCCATCTNCAATTCTNCTGTTNGAAAGAAC
NTTGCTTCCAGCNTTCTTCCAAANCNATTNTNGAAACCCCTGTTCNAAGAAA
TTGGGTTCANCTCCAATTCTNTCCATTCCNAAGGGGTTCCACTTTAACCCGNATN
ANCAACCAAGGGATTGAAAAACGGGAAAGGGAAAAAATNGGCCTACTTNCAAGG
15 GAANGCGCCCCCTCAAGNAATTNCAAAGAAGNANANAA

FIG. 20

Title: Soybean Sudden Death Syndrome Resistant Soybeans,
Soybean Cyst Nematode Resistant Soybeans and Methods
of Breeding and Identifying Resistant Plants
Applicant(s): Lightfoot et al.
Attorney Docket No.: 1268/2/2

(SEQ ID NO:20)

NGNCAGCCNGTGNATGACCACTATAGGGCGAATTGCCAAGTCGGCCGAGCTCGAAT
TCGTCGACCTCGAGGGATCTATATATAGGCTTGCTAAGGGTAGAGAGAGAGGAAGACTAGA
GATTGGATCNACAATGCCAATAACAAAGAGTTNACCAGAACATCNAACACAAATNCATT
5 GTCNGATATAACAAAATGCTTTAACACAGTGCTTCACATAACAGTGTNAGATTGA
GCCCAACTCCTTCTCAATGATAACATCCNGGATGGACCAATTGACATGCATCACCNAT
TTGGCAGTCTCATGCACAACCACATTCCCACANTATGTNTGANGTCATTGCCNGTT
CACTAAGANAATTATTCCCTCCCAGTTCANGTNGAGTCTCANTCCNNAAATATAGTCCC
TTTGTCCNATTCCNTCTNAAATCCTCCTGTGGAAAGACCATTGCATNCAGCTTCTA
10 TCNGAAACAATATTGGAAACCCCTGTCTTCCAAGAAATNGGTGTCCNCTCNATTCT
NTCCCATACCNAAGGGTTACCCAGTTACCTGATTAGANCNNAAGGGAGTGGAAANA
CCGGGAAAGGAANAAAATNGGCCNACTTCCAAGGAAGGCCCTCCNTNAGAAAATTTG
AGAGAGAGAGAAGAGTTCTTNACCTTGCTGCCTCNTTATATTANTCCAGTNTTATN
CCCNCNANGTGGTTACCNAANCCTTCCNCCNAATACNGTCTNACTAATTGGTACT
15 ACCCCNCCCCCTNGTACCAN

FIG. 2I

Title: Soybean Sudden Death Syndrome Resistant Soybeans,
Soybean Cyst Nematode Resistant Soybeans and Methods
of Breeding and Identifying Resistant Plants
Applicant(s): Lightfoot et al.
Attorney Docket No.: 1268/2/2

TABLE OF THE GENETIC CODE

<u>Amino Acids</u>	<u>Codons</u>						
Alanine	Ala	A	GCA	GCC	GCG	GCU	
Cysteine	Cys	C	UGC	UGU			
Aspartic acid	Asp	D	GAC	GAU			
Glutamic acid	Glu	E	GAA	GAG			
Phenylalanine	Phe	F	UUC	UUU			
Glycine	Gly	G	GGA	GGC	GGG	GGU	
Histidine	His	H	CAC	CAU			
Isoleucine	Ile	I	AUA	AUC	AUU		
Lysine	Lys	K	AAA	AAG			
Leucine	Leu	L	UUA	UUG	CUA	CUC	CUG
Methionine	Met	M	AUG				
Asparagine	Asn	N	AAC	AAU			
Proline	Pro	P	CCA	CCC	CCG	CCU	
Glutamine	Gln	Q	CAA	CAG			
Arginine	Arg	R	AGA	AGG	CGA	CGC	CGG
Serine	Ser	S	AGC	AGU	UCA	UCC	UCG
Threonine	Thr	T	ACA	ACC	ACG	ACU	
Valine	Val	V	GUA	GUC	GUG	GUU	
Tryptophan	Trp	W	UGG				
Tyrosine	Tyr	Y	UAC	UAU			

FIG.22

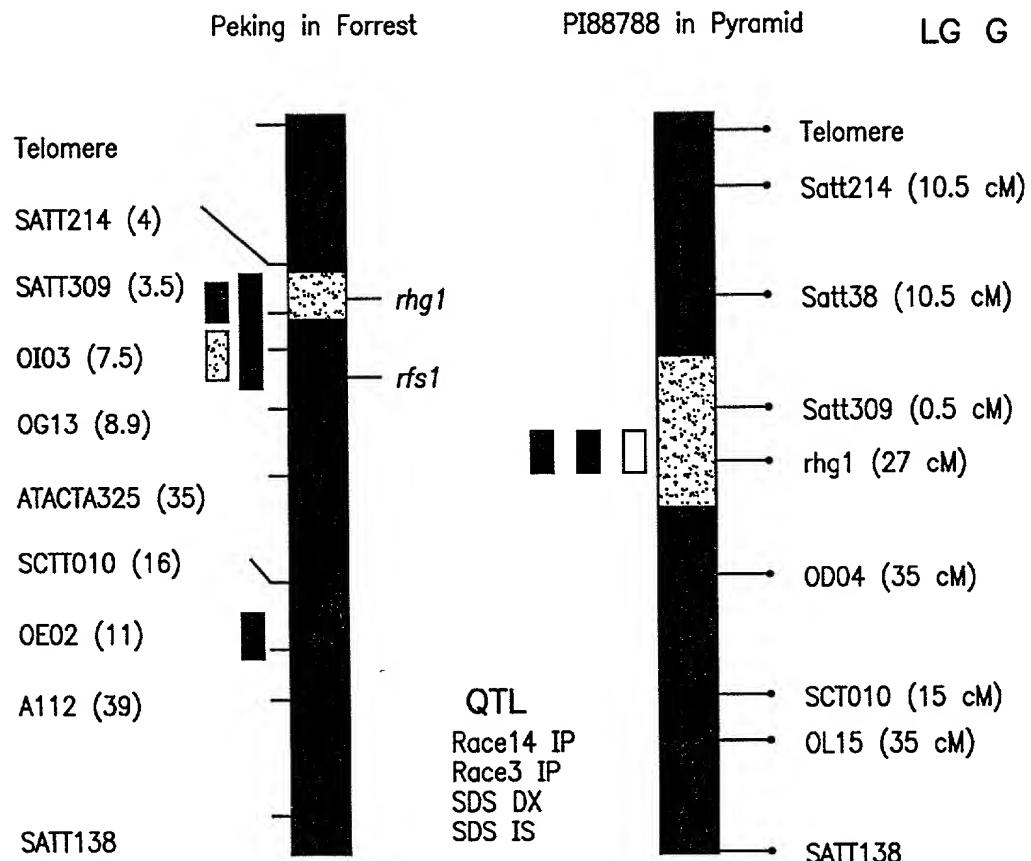


FIG. 23